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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,398	07/19/2001	Milivoj Vujic	P24.870-USA	7782

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EXAMINER

CHANG, VICTOR S

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 11/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/830,398

Applicant(s)

VUJIC, MILIVOJ

Examiner

Victor S Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 14-29 is/are pending in the application.
- 4a) Of the above claim(s) 21-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 14-20 and 24-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8,9. 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1-4, 14-20 and 24-29, drawn to a preformed insulation module.

Group II, claim 21, drawn to a method of manufacturing an insulation module.

Group III, claim 22, drawn to a method of insulating a process component.

Group IV, claim 23, drawn to an insulation system.

2. The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Groups I-II and IV are each either anticipated by or obvious over Kikuchi (US 4287245). As the recited insulation module, manufacturing method, and insulation system lack novelty and does not to make a contribution over the prior art, unity of invention is lacking and restriction is appropriate. Similarly, Group III is old and well known nominal steps of insulating a process component.

3. During a telephone conversation with Alexis Barron on 10/30/2002 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-4, 14-20 and 24-29. Affirmation of this election must be made by applicant in replying to this

Office action. Claims 21-23 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

5. Claims 18-20 and 27-29 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The opening of the recess is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

More particularly, the structural location of the opening of the recess which forms the contraction/expansion joint is not incorporated in the claims.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-4 and 14-20 and 24-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 5, the term "suitable" is vague and indefinite.

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In claim 2, line 2, the Examiner suggests delete "further". Additionally, the claim language is vague and confusing, clarification is requested.

In claim 4, line 3, after "extending" insert "--contacting--".

In claims 16, 24-26, line 2 in each claim, the term "different" is vague and indefinite.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-4, 16 and 24-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Kikuchi (US 4287245).

Kikuchi's invention is directed to a heat insulator for pipelines for transportation of low temperature fluids (Abstract). In Figs. 1-2, a pipe for transportation of an extremely low temperature fluid is provided with the heat insulator composed of a plurality of longitudinally divided cylindrical heat-insulating units arranged in series to cover the pipe over its full length (column 3, lines 63-68), and each heat-insulating unit is preferably semi-cylindrical in shape so that a pair of them is used as a minimum unit for the construction of the heat insulator (column 4, lines 7-10). Kikuchi teaches that the heat-insulating element may have on its inner surface a layer of a reinforcing material such as a sheet, woven or knitted fabric, non-woven fabric or a low-foamed synthetic

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resin (column 5, lines 20-24). Further, Kikuchi teaches that the foamed insulating synthetic resin is overlaid with a thin metal plate (column 4, lines 45-50), and it is believed that in addition to being a cladding layer, the metal plate inherently functions as a water vapor barrier layer. Additionally, Kikuchi teaches that in case the heat insulator system is used at an ultra-low temperature, each joint surface is preferably stepped to form two separate sections and the inner section (or the lower temperature section) is packed under pressure with a heat insulating material having an effective compression stability while the outer section (or the higher temperature section) is packed with a moisture-proof, heat-insulating material. In Fig. 3, the structure of the insulating element is shown in which both of the faces 2a and the faces 2b are stepped (column 7, line 58 to column 8, line 8).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 14-15, 17-18 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi (US 4287245) either individually, or in view of GB 2296749.

The teachings of Kikuchi are again relied upon as set forth above.

For claims 14-15, it is noted that the Kikuchi teaches a stepped contacting surface. However, it is believed that modifying the contacting surface to improve the

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sealing performance is within the ordinary skill in the art. Alternatively, GB '749 is directed to a pipe insulation element. In Fig. 1, GB '749 shows a connection means of tongue and groove joints. As such, it would have been obvious to one of ordinary skill in the art to modify Kikuchi's contacting surface with the tongue and groove joints of GB '749, motivated by the desire to improve the sealing performance at the joint.

For claim 17, Kikuchi teaches that the insulating material is a foamed synthetic resin with excellent low temperature characteristics, e.g. a polyisocyanate-base foamed synthetic resin such as a rigid polyurethane foam or a polyisocyanurate foam, etc. (column 7, lines 23-28). Although Kikuchi does not expressly teach the use of polyimide foam, in the absence of unexpected results, it is believed that polyimide foam is either inherently disclosed, or an obvious selection to one of ordinary skill in the art.

For Claims 18 and 27-29, it is believed that forming a gap intermittently along the length to accommodate contraction/expansion due to temperature changes is old and well known. As such, it would have been obvious to one of ordinary skill in the art to incorporate recessed gaps in the insulating material, motivated by the desire to accommodate the changes in length caused by temperature changes.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In addition, the following references are cited of interest for pipe insulation:

US 6403182 to Plummer et al.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S Chang whose telephone number is 703-605-4296. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

VSC
VSC
November 20, 2002

DANIEL ZIRKER
PRIMARY EXAMINER
GROUP ~~1300~~

1700

Daniel Zinker